SOLVING THE CAUSATION PROBLEM IN COLORADO MEDICAL MALPRACTICE LAW

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I. INTRODUCTION

The concept of causation generates more confusion than perhaps any other topic in tort law.[1] Making sense of its messy architecture has been a

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[1]A number of reasons have been advanced for the confusion, but there is some consensus that the problem lies in the fact that causal analysis has been a legal chameleon, applied so broadly and substituted for many different elements of a negligence case, that it has been deprived of any actual integrated meaning. Fleming James Jr. & Roger F. Perry, *Legal Cause*, 60 YALE L.J. 761, 762 (1951); Leon Green, *Proximate Cause in Texas Negligence Law*, 28 TEX. L. REV. 471 (1950). In the early twentieth century, judges were guilty of using causal rhetoric not to discuss whether tortious conduct actually contributed to an injury, but instead as a way to determine whether policy should permit the defendant to be held liable for an injury clearly caused by his conduct. Richard W. Wright, *Causation in Tort Law*, 73 CAL. L. REV. 1735, 1737 (1985). In doing so, causation developed into a multifaceted element of negligence that encompassed far more than the simple question of whether a defendant was a cause of a plaintiff's injury. *Id.* From this

long-standing challenge for lawyers, judges, and scholars alike.[2] Preeminent scholars on the subject have recognized that "[f]ew issues in tort law are more in need of clarification"[3] and have even characterized earlier attempts to explain causation as "incoherent."[4] In fact, one of the objectives of reworking the Restatement of Torts for its third rendition was to address the widespread confusion on the topic of causation.[5] Like many states, Colorado desperately needs a solution to the causation problem.

Nowhere is the confusion more apparent than in medical negligence, where causation plays a critical part in almost every case. Clarity and consistency are therefore of paramount importance. Unfortunately, the case law in Colorado lacks both. Colorado cases often contain inconsistent and conflicting terminology, misinterpret or misconstrue law, and, perhaps most alarming of all, employ different legal standards.[6] The goal of this Article is to identify these problems, explain their magnitude, and then offer potential solutions.

To that end, this Article proceeds in three parts. First, we provide general background into medical malpractice law in Colorado, focusing on the element of causation. Next, we confront two central problems: (1) the problem with terminology, which has led to confusion and, at times, inconsistent legal standards for causation; and (2) the problem of

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emerged a vast body of literature and strikingly divergent views concerning the "nature, content, scope, and significance" of causation. *Id.* While some progress toward coherence has been made, the challenge of distilling all these issues into a comprehensive, useful, and simple legal formula is a daunting and ongoing task. *See generally* Richard W. Wright, *Causation in Tort Law*, 73 CAL. L. REV. 1735, 1737 (1985).

[2] Richard W. Wright, *Causation in Tort Law*, 73 CAL. L. REV. 1735, 1737 (1985); *see also* Michael McConnell, *Proximate Causation in Colorado Legal Malpractice Litigation*, COLO. LAW. at 9, 20 (Jan. 2002) (acknowledging that the "[t]he terminology and rationales used in [Colorado] case law to describe and justify [proximate cause] are varied and often confusing").

[3] Richard W. Wright, *Once More into the Bramble Bush: Duty, Causal Contribution, and the Extent of Legal Responsibility*, 54 VAND. L. REV. 1071, 1072 (2001).

[4] Jane Stapleton, *Legal Cause: Cause-in-Fact and the Scope of Liability for Consequences*, 54 VAND. L. REV. 941, 944 (2001).

[5] *See, e.g.,* Restatement (Third) of Torts: Phys. & Emot. Harm § 26, cmt. a & Reporter's Note cmt. a (2010).

[6] *See infra* section III.

application, which has produced arbitrary and contradictory opinions. Together, these problems have created a discrepancy between the legal standard of causation and its practical application. The practical burden facing medical malpractice plaintiffs is seemingly more onerous than the legal one. At the very least, no consistent standard for causation exists. Finally, we suggest a path forward. We are not advocating for sweeping reform, robust changes, or a complete abrogation of the common law. In Colorado, the solution is less complicated. It simply requires clarification and a commitment to consistently applying the law to the facts of a case.

II. OVERVIEW OF COLORADO MEDICAL MALPRACTICE LAW

Medical malpractice is a species of negligence, and contains the same familiar elements: duty, breach, causation, and damages.[7] Proving causation can often be the hardest part of the case and a significant legal impediment to overcome.[8] Because the subject of medicine is typically beyond the common knowledge of a layperson, establishing a *prima facie* case of medical malpractice requires the support of expert testimony.[9] Therefore, causation must be supported by an expert qualified to provide opinions on whether the breach of the standard of care is a cause of the plaintiff's injury. Consequently, offering evidence of causation first requires

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[7] Greenberg v. Perkins, 845 P.2d 530, 534 (Colo. 1993) (explaining that "medical malpractice is a particular type of negligence action"). To succeed in a medical malpractice claim, a plaintiff must prove that she suffered injuries, the defendant had a legal duty of care, the defendant was negligent by breaching that duty of care, and the defendant's negligence was a cause of plaintiff's injuries. *See*, *e.g.*, Colo. Jury Instr., Civil 9:1; Restatement (Second) of Torts § 430 (1965) ("In order that a negligent actor shall be liable for another's harm, it is necessary not only that the actor's conduct be negligent toward the other, but also that the negligence of the actor be a legal cause of the other's harm"); Day v. Johnson, 255 P.3d 1064, 1068–69 (Colo. 2011).

[8] This is not unique to Colorado. "[C]are providers can virtually always blame the patient's damage on her preexisting medical condition and other circumstances for which they are not responsible. These conditions and circumstances make causation in a medical malpractice case an extremely complex issue. In the absence of special legal rules, this issue could present an insurmountable evidentiary obstacle for many wronged patients." Alex Stein, *Toward A Theory of Medical Malpractice*, 97 IOWA L. REV. 1201, 1217-18 (2012).

[9] Williams v. Boyle, 72 P.3d 392, 397 (Colo. App. 2003), *as modified on denial of reh'g* (Feb. 6, 2003).

that the expert's opinions meet the threshold of admissibility pursuant to Rule 702 of the Colorado Rules of Evidence.

However, admissible expert opinions on causation do little good if they do not also meet the benchmark necessary to support a *prima facie* case of negligence. Broadly speaking, Colorado courts generally require plaintiffs to establish but-for causation, or that the defendant's conduct was a cause without which the injury would not have occurred.[10] This requires a showing by a preponderance of the evidence—that it is more probably true than not—that the injury would not have occurred but for the defendant's negligent conduct.[11]

While straightforward in isolation, establishing causation becomes far more complex in situations where the failure to provide certain treatment increases the risk of harm and/or aggravates the patient's injuries, or where one defendant's conduct is merely a contributing cause to the injury (in combination with the conduct of other defendants, third parties, or natural events) rather than the sole cause. As will be discussed below, in these circumstances, the standard of causation is ill-defined and unevenly applied, with little regard for consistency and clarity. To further complicate matters, both courts and litigants conflate the concepts of admissibility of expert testimony and the sufficiency of evidence to establish causation.

Therefore, it is critical to understand the relationship between the admissibility of expert testimony, the burden of proof, and the legal standard for causation. Even if expert opinion testimony is admissible, that does not mean that it is sufficient evidence to support a finding of causation.

A. The Standard for the Admissibility of Expert Testimony

Rule 702 governs the admissibility of expert testimony in Colorado and permits a qualified expert to testify in the form of an opinion if scientific knowledge will assist the jury to understand the evidence or determine a fact in issue.[12] To be admissible under Rule 702, medical opinion testimony

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[10] *But see* § 21:25. Causation—Increased risk of harm, 7 Colo. Prac., Personal Injury Torts And Insurance § 21:25 (3d ed.) (discussing the split of authority in Colorado regarding what constitutes sufficient evidence of causation in a medical malpractice case). This matter will be further discussed below in Parts II and III.

[11] Kaiser Found. Health Plan of Colorado v. Sharp, 741 P.2d 714, 719 (Colo. 1987) ("*Sharp II*").

[12] People v. Shreck, 22 P.3d 68, 77 (Colo. 2001). Rule 702 states, "If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by

must be both reliable and relevant.[13] This is a departure from the common-law standard that predated the 1979 adoption of the Colorado Rules of Evidence.[14] The old criterion required that expert opinions be held to a "reasonable medical probability" to be admissible.[15] This antiquated standard has been expressly abrogated and is inappropriate for determining the admissibility of expert testimony under the Colorado Rules of Evidence.[16] Nevertheless, this phrase is still widely used by both attorneys and experts and is often improperly assessed within the context of causation, rather than admissibility, as originally intended.

Acting as the gatekeeper of expert opinion testimony, the trial court must evaluate (1) whether the scientific principles underlying the testimony are reasonably reliable; (2) the expert's qualifications; (3) if the expert testimony will be helpful (relevant) to the jury; and (4) if the evidence satisfies Colorado Rule of Evidence 403. [17]

This broad inquiry should consider the totality of the circumstances of the specific case, rather than employ a rigid set of factors.[18] However, if the proponent of the expert testimony fails to show that the method employed by the expert in reaching the conclusion is scientifically sound,

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knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise."

[13] People v. Ramirez, 155 P.3d 371, 378 (Colo. 2007); People v. Shreck, 22 P.3d 68, 77 (citing Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579, 589 (1993)).

[14] Ramirez, 155 P.3d at 374-75.

[15] *See id.* This "reasonable medical probability" standard apparently originated in Houser v. Eckhardt, 450 P.2d 664 (Colo. 1969). In that case, the Colorado Supreme Court held that a nontreating physician retained by the plaintiff to testify at trial "may testify to his opinion based upon reasonable medical probability as to the nature and extent of claimant's injuries and disabilities and to other related matters . . ." *Id.* at 668.

[16] Ramirez, 155 P.3d at 375.

[17] *See* People v. Shreck, 22 P.3d 68, 77-79 (Colo. 2001); Brooks v. People, 975 P.2d 1105, 1109 (Colo. 1999); *see also* Lorenzen v. Pinnacol Assurance, 457 P.3d 100, 107 (Colo. App. 2019). While a detailed discussion of an expert's qualifications is outside the scope of this essay, as part of its Rule 702 inquiry, the court must review the qualifications of the witness and determine whether a showing of "knowledge, skill, experience, training, or education" has been made sufficient to support testimony in the form of an expert opinion. *See* Huntoon v. TCI Cablevision of Colorado, Inc., 969 P.2d 681, 689 (Colo. 1998). "The issue with regard to expert testimony is . . . whether those qualifications provide a foundation for a witness to answer a specific question." Squires ex rel. Squires v. Goodwin, 829 F. Supp. 2d 1041, 1049 (D. Colo. 2011).

[18] Ramirez, 155 P.3d at 378.

and that the opinion is based on facts that satisfy Rule 702's reliability requirements, it is subject to exclusion. [19, 20]

Admissible expert testimony is "grounded in the methods and procedures of science . . . "[S]cientific expert testimony that relies on bare assertions, subjective belief, or unsupported speculation will not satisfy the reliability requirement."[21] However, this does not require that the proponent prove that the expert is "undisputedly correct or that the expert's theory is generally accepted in the scientific community."[22] The standard for admissibility of expert opinion is intended to be liberal because the testimony is further vetted through cross-examination, the presentation of contrary evidence, and careful instruction on the burden of proof. Because two experts may have conflicting but nevertheless equally admissible opinions on a particular issue, the trial court acts as the gatekeeper tasked with excluding junk science, rather than the arbiter of which expert's opinion is more true or credible.[23]

While the court's inquiry is generally limited to the expert's methodology, rather than the conclusions they draw,[24] the opinions are inadmissible when a qualified expert uses flawed methods to analyze the data.[25] An expert's inference or assertion must be supported by appropriate

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[19] *Id.* at 378-79; Estate of Ford v. Eicher, 250 P.3d 262, 267-68 (Colo. 2011).

[20]Once the trial court has determined that the proffered expert opinion is reasonably reliable, the inquiry turns to relevance. In assessing the relevance of expert testimony under Rule 702, the trial court should examine whether the proposed testimony would be useful to the factfinder. Shreck, 22 P.3d at 77. This analysis hinges on whether there is a logical relation between the proffered testimony and the factual issues involved in the case. Ramirez, 155 P.3d at 379. The court should consider, among other things, the elements of the particular claim and the scope and content of the opinion itself. *Id.* Finally, the court must determine if Colorado Rule of Evidence 403 otherwise bars the testimony. Shreck, 22 P.3d at 82. Doing so requires that the court ensure the probative value of the expert's testimony is not substantially outweighed by the danger of unfair prejudice, misleading the jury, wasting time, delay, cumulative evidence, or confusing the issues. *Id.*

[21] *Id.* at 267.

[22] Ramirez, 155 P.3d at 378 (internal citation omitted).

[23] Trujillo v. Vail Clinic, Inc., 480 P.3d 721, 724 (Colo. 2020) (internal citations omitted).

[24] Daubert, 509 U.S. at 595.

[25] "[A]ny step that renders the analysis unreliable . . . renders the expert's testimony inadmissible. This is true whether the step completely changes a reliable methodology or merely misapplies that methodology." Mitchell v. Gencorp Inc., 165 F.3d 778, 782 (10th Cir. 1999).

validation (good grounds) based on what is known.[26] The court may determine that there is simply too great a gap between the data and the expert's conclusions,[27] and is not required to admit opinion evidence that is only connected to the existing data based on the *ipse dixit* of the expert.[28]

The threshold for admissibility under Rule 702 is reliability rather than certainty.[29] "[E]xpert medical testimony need not be rendered with reasonable medical probability or certainty."[30] This rigid and now-obsolete common law standard of reasonable medical probability does not "comport with the broad inquiry mandated by the Colorado Rules of Evidence and [the Court's] decision in *Shreck*."[31]

Although the "reasonable medical probability" standard arose in the context of *admissibility* of expert opinion testimony, this phrase has been commandeered by attorneys and courts and used as an improper benchmark for establishing *causation*, creating significant confusion regarding the degree of proof necessary to establish causation under Colorado law. The first step in the analysis is whether the expert opinion on causation is sufficiently reliable to be admissible under Rule 702. Once it passes muster under that rule, the question turns to whether it presents sufficient evidence to allow the jury to find causation. Neither analysis requires a finding to a reasonable degree of medical probability or certainty.

B. The Standard for Medical Causation and the Burden of Proof

Causation opinions do not necessarily reach the jury simply because the expert's opinions are admissible under Rule 702. The plaintiff must also present *prima facie* proof of causation that would permit a reasonable inference that it is *more probably true than not* that the defendant's act or omission is a cause of the plaintiff's injury. [32] In other words, there must be sufficient

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[26] Hollander v. Sandoz Pharm. Corp., 289 F.3d 1193, 1205 (10th Cir. 2002).

[27]While the court's focus should typically be limited to the methodology, the expert's conclusions are not immune from scrutiny: "A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered." General Elec. Co. v. Joiner, 522 U.S. 136, 147 (1997).

[28] *Id.*; *accord,* Mitchell, 165 F.3d at 782.

[29] Estate of Ford, 250 P.3d at 266. Under Rule 702, any concerns about the degree of certainty to which the expert holds his opinions are sufficiently addressed by "vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof rather than exclusion." *Id.*

[30] *Id.* (emphasis added).

[31] *Id.*

[32]*See* CJI-Civ. 3:1.

evidence to allow a reasonable juror to conclude that the plaintiff's injury would not have occurred *without* the defendant's negligence.

Plaintiffs are not required to prove with absolute certainty that the defendant's negligence caused their harm nor establish that the defendant's negligence was the *only* cause of the injury, but mere possibilities or speculation are insufficient to establish a causal connection. [33] Determining where a triable causation issue lies on the spectrum between mere possibilities and absolute certainty, however, becomes complicated when more than one act or event contributes to an injury.

A cause is defined as an act or omission *without which* the claimed injury would not have happened. It does not have to be the only cause or the last or nearest cause—it is enough if the act or omission joins with some other event to cause some or all of the claimed injury. However, conduct that must join with an intervening (unforeseeable) event to produce injury is not a cause under Colorado law.[34]

When multiple events combine to cause the injury, the analysis turns on whether the negligent conduct is a necessary component of the causal set that resulted in the injury.[35] It is not an excuse that the defendant's conduct is not the closest in time to the injury, or that it only caused some (but not all) of the injury.[36] However, if the defendant's conduct must join with an unforeseeable (intervening) cause in order to bring about the injury, it does not meet the threshold for but-for causation under Colorado law.[37] In some cases involving multiple causes or preexisting conditions, courts have characterized the issue as whether the defendant's conduct was a substantial

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[33]Kaiser Found. Health Plan of Colorado v. Sharp, 741 P.2d 714, 719 (Colo. 1987) (emphasis added; internal citations omitted); *see also* Smith v. Curran, 472 P.2d 769, 770-71 (Colo. App. 1970).

[34] CJI-Civ. 9:20 (emphasis added).

[35] *See* Reigel v. SavaSeniorCare L.L.C., 292 P.3d 977, 986-987 (Colo. App. 2011).

[36] One of the many critiques of the ubiquitous term "proximate cause" is that it incorrectly implies that the actual cause is whichever is the nearest in time or geography. Restatement (Third) of Torts: Phys. & Emot. Harm § 29, Reporter's Note, cmt. b (2010); *see also* Dan B. Dobbs, Paul T. Hayden and Ellen M. Bublick, THE LAW OF TORTS § 208 (2d ed.) at 2 (2023) ("The word *proximate* means near or next or most immediate, and taken literally it suggests that only the most immediate trigger of harm can be the proximate cause. That simply is not the law.").

[37]*See* Danko v. Conyers, 432 P.3d 958, 966-967 (Colo. App. 2018) (discussion regarding whether an "unnecessary amputation" was an intervening cause and extraordinary misconduct sufficient to extinguish downstream negligence).

factor in bringing about the harm.[38] However, as will be discussed below, "substantial factor" has been ascribed imprecise, dual, and contradictory meanings, thus providing little value to litigants.

While the "probability" or "more likely than not" burden of proof suggests that plaintiffs must establish that they had a greater than 50% chance of avoiding or reducing their injuries but for the defendant's tortious conduct, even when there are multiple causes at play, Colorado courts have almost universally rejected such a draconian interpretation, insisting that a showing of less than 50% is sufficient to prove causation.[39] Despite the insistence on a less onerous legal standard, however, Colorado courts have not issued consistent rulings, or utilized consistent reasoning in cases where it is unclear whether the plaintiff had a greater than 50% chance of avoiding harm absent the defendant's negligence.[40] It is in those circumstances where the most glaring problems arise.

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[38] *See*, *e.g.*, Smith v. State Comp. Ins. Fund, 749 P.2d 462, 464 (Colo. App. 1987) ("Also, for a plaintiff to prevail on causation, it is necessary to show that the negligence was a "substantial factor" in producing the harm. Here, several events may have brought about the harm to decedent. Under such circumstances, if an event other than the defendants' negligence appears predominant, the defendants' negligence cannot be considered a substantial factor.").

[39] Sharp v. Kaiser Found. Health Plan of Colorado, 710 P.2d 1153, 1156 (Colo. App. 1985) ("[D]efendants would have us adopt a rule that a plaintiff has failed to establish a prima facie case if his evidence is not sufficient to support a finding that the chance of avoiding the harm, absent defendant's negligence, was over 50%. Such a rule sets an arbitrary percentage threshold and fails to deter negligent conduct in cases where chances of survival or recovery are less than 50 percent."); June v. Union Carbide Corp., 577 F.3d 1234, 1247 (10th Cir. 2009) (conceiving of scenarios where conduct that contributes 5% or 10% to the injury may "support but-for claims"); Mitchell v. Jess, No. 21CA1434 (Colo. App. February 9, 2023) ("We do not hold that every case in which a treatment has a statistically less-than-even chance of success automatically fails the but-for causation standard").

[40] *Compare Sharp II*, 741 P.2d at 719 (affirming but-for causation when there was less than a 50% contribution to the injury), Nelson v. Hammon, 802 P.2d 452 (Colo. 1990) (same), Johnson v. National Railroad Passenger Corp., 989 P.2d 245 (Colo. App. 1999) (same) *with* Mitchell, No. 21CA1434 (rejecting but-for causation when there was a less than 50% contribution to the injury). *See also* June, 577 F.3d at 1247 (not taking a position on whether a less than 50% contribution to the injury constitutes but-for causation).

III. TWO CAUSATION PROBLEMS

The confusion in Colorado medical malpractice law stems from two distinct areas. First, the terminology varies, is inexact, and at times, incorrect. Though this problem is not unique to Colorado,[41] rather than rectifying the situation, Colorado has only magnified it. Second, the confusion around terminology, as well as the lack of commitment to a uniform application of the legal standard for causation, has resulted in inconsistent and contradictory rulings.[42] In medical malpractice cases, courts seem to either misinterpret the legal standard, misapply it, or sidestep it to issue rulings on separate grounds. These problems create disparity for plaintiffs and danger for defendants.

A. The Problem with Terminology

As explained above, a plaintiff must prove that the defendant's breach of the standard of care was *a cause* of her injuries to establish a *prima facie* case of medical malpractice.[43] Importantly, there are two inherent, though distinct, concepts encompassed by the element of causation. The first concept is referred to as causation-in-fact, factual cause, or actual cause.[44] It involves whether the defendant's tortious conduct actually contributed to the injury.[45]

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[41] *See generally* Restatement (Third) of Torts: Phys. & Emot. Harm § 26, Reporters' Note, cmt. a (2010); Restatement (Third) of Torts: Phys. & Emot. Harm § 29, Reporters' Note, cmts. a-b (2010).

[42] See *infra* section III.B.

[43] *See*, *e.g.*, Colo. Jury Instr., Civil 9:1; Restatement (Second) of Torts § 430 (1965) ("In order that a negligent actor shall be liable for another's harm, it is necessary not only that the actor's conduct be negligent toward the other, but also that the negligence of the actor be a legal cause of the other's harm").

[44] Colorado courts have used these three terms interchangeably and synonymously to describe this first aspect of causation, with "causation-in-fact" being used most often. *See, e.g.,* Reigel v. SavaSeniorCare L.L.C., 292 P.3d 977, 985 (Colo. App. 2011) (using "causation-in-fact"); Rocky Mountain Planned Parenthood, Inc. v. Wagner, 467 P.3d 287, 298 (Colo. 2020) (using "actual cause") (Hart, J., dissenting); Hook v. Lakeside Park Co., 351 P.2d 261, 265 (Colo. 1960) (using "factual cause"). However, Jane Stapleton points out that there is almost no reference to any of these three terms in the Second Restatements. Jane Stapleton, *Legal Cause: Cause-in-Fact and the Scope of Liability for Consequences*, 54 VAND. L. REV. 941, 972 (2001).

[45] Richard W. Wright, *Once More into the Bramble Bush: Duty, Causal Contribution, and the Extent of Legal Responsibility*, 54 VAND. L. REV. 1071,

The second concept accepts that the defendant's tortious conduct actually contributed to the plaintiff's injury and instead focuses on the extent to which a defendant should ultimately be held liable, taking into consideration legal theory, policy judgments, and economics.[46] The concepts embodied by this second type of causal analysis have been called "legal" or "proximate" cause.[47] However, the Third Restatement of Torts dropped both of these terms and replaced them with the phrase, "scope of liability."[48] These terms—legal cause, proximate cause, and factual cause—are all used by Colorado courts when analyzing causation issues. Unfortunately, courts frequently misuse these terms or give them inconsistent or incorrect meaning, resulting in significant confusion regarding the true definition and application of causation in medical negligence cases.

1. Causation-in-fact

The general rule for causation-in-fact is that the injury would not have occurred but-for the defendant's negligence.[49] It requires that the negligent conduct of the defendant was an actual cause of a legally recognized harm to the plaintiff.[50] It is a scientific inquiry that "involves an application of the laws of physics to the data to determine whether there is

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1072 (2001); Richard W. Wright, *Causation in Tort Law*, 73 CAL. L. REV. 1735, 1737 (1985).

[46] Richard W. Wright, *Causation in Tort Law*, 73 CAL. L. REV. 1735, 1737 (1985).

[47]Historically, courts used proximate cause to analyze the normative issue of the extent to which a defendant is legally responsible for tortiously caused conduct. Richard W. Wright, *Once More into the Bramble Bush: Duty, Causal Contribution, and the Extent of Legal Responsibility*, 54 VAND. L. REV. 1071, 1074 (2001). The Second Restatements deliberately dropped this term for "legal cause" because "proximate" naturally connotated close-in-time proximity between the event and the injury, which is not only unhelpful, but also contrary to its very meaning. *Id.* Unfortunately, the Second Restatement's shift to legal cause was not a step toward clarity and became a misleading term in its own right. Restatement (Third) of Torts: Phys. & Emot. Harm 6 Spec. Note (2010) (explaining that legal cause is misleading because it gives the impression that limitations on liability are related to factual cause).

[48] Restatement (Third) of Torts: Phys. & Emot. Harm 6 Spec. Note (2010).

[49] Reigel v. SavaSeniorCare L.L.C., 292 P.3d 977, 985 (Colo. App. 2011).

[50]Dan B. Dobbs, Paul T. Hayden and Ellen M. Bublick, THE LAW OF TORTS § 183 (2d ed.) (2023).

an unbroken chain of causes and effects, starting with the negligent conduct and ending with the harm complained of."[51]

There are exceptions to this general rule when a case involves multiple, concurrent causes or preexisting conditions, a scenario that arises in almost every medical malpractice case. The terminology for cause-in-fact generally suffers from less confusion than its counterpart, proximate cause. However, when cases involve preexisting conditions or multiple events that contribute to the injury, the terminology used to describe and explain these factors becomes obscured. This can be seen quite clearly by reviewing the "substantial factor" test and the many personas it inhabits—as an alternative to but-for causation, a subset of but-for causation, or a synonym for proximate causation—when considered by Colorado courts.

a) Substantial factor as an alternative to but-for causation

At least one division of the Colorado Court of Appeals has applied the substantial factor test as an alternative, less strenuous burden than but-for causation when several forces are operating concurrently to produce an injury. The case *Sharp v. Kaiser Foundation Health Plan of Colorado*[52] ("*Sharp I*") involved a defendant who misdiagnosed the plaintiff's unstable angina as stable angina.[53] In order to prove causation, the plaintiff retained a medical expert who testified that a patient with untreated unstable angina has a risk factor of 35-40% of suffering a heart attack.[54] By contrast, when a patient with unstable angina is appropriately diagnosed and treated, the risk of a heart attack is reduced to 15%.[55] Thus, the plaintiff's chance of a heart attack was more than doubled because of the defendant's negligence, increasing from 15% to as high as 40%.

Presented with this evidence, the trial court entered summary judgment in favor of the defendant, reasoning that the plaintiff had not established causation. However, the Court of Appeals reversed the trial court's decision by applying the substantial factor test to the evidence.[56] In doing so, it concluded, "A defendant's conduct is a substantial factor where

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[51] Jane Stapleton, *Legal Cause: Cause-in-Fact and the Scope of Liability for Consequences*, 54 VAND. L. REV. 941, 973 (2001).
[52] 710 P.2d 1153, 1154 (Colo. App. 1985), *aff'd*, 741 P.2d 714 (Colo. 1987).
[53] *Id.*
[54] *Id.*
[55] *Id.*
[56] *Id.* at 1155.

it is of sufficient significance in producing the harm as to lead reasonable persons to regard it as a cause and to attach responsibility."[57] The court explained that if there is "evidence that a defendant's negligent act or omission substantially increased the risk of harm to a person in plaintiff's position, and that the harm in fact has been sustained, it becomes a question of fact for the jury to determine whether that increased risk of harm was a substantial factor in producing the harm."[58]

In its ruling, the court rejected the argument that a plaintiff must prove that the defendant's negligence had a greater than 50% chance of resulting in harm to plaintiff, and clarified that such an "arbitrary percentage threshold . . . fails to deter negligent conduct in cases where chances of survival or recovery are less than 50 percent."[59] Moreover, the court emphasized that when the plaintiff can show the defendant's negligence increased the risk of harm or deprived the plaintiff of a chance to avoid harm, the case must be decided by a jury.[60] The court supported its reasoning with Sections 431 and 323 of the Second Restatements.[61]

While never stated explicitly, *Sharp I* appears to have construed the substantial factor test as a form of the "loss of chance doctrine" adopted by several jurisdictions, many of which have also used the substantial factor

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[57] *Id.*

[58] *Id.* at 1156.

[59] *Id.*

[60] *Id.*

[61] *Id.* Section 431 specifies that an "actor's negligent conduct is a legal cause of harm to another if (a) his conduct is a substantial factor in bringing about the harm." Restatement (Second) of Torts § 431 (1965). The language for "increased risk" comes from section 323, which states, in pertinent part, "One who undertakes, gratuitously or for consideration, to render services to another which he should recognize as necessary for the protection of the other's person or things, is subject to liability to the other for physical harm resulting from his failure to exercise reasonable care to perform his undertaking, if (a) his failure to exercise such care increases the risk of such harm. . ." Restatement (Second) of Torts § 323 (1965). Some of the earliest and most notable cases to adopt "the lost chance" approach in section 323 involved medical negligence. *See* Zaven T. Saroyan, *The Current Injustice of the Loss of Chance Doctrine: An Argument for A New Approach to Damages*, 33 CUMB. L. REV. 15, 24 (2003); *see also* Hicks v. United States, 368 F.2d 626 (4th Cir. 1966); Hamil v. Bashline, 392 A.2d 1280 (Pa. 1978).

language taken from Sections 431 and 323 of the Second Restatements.[62] The Colorado Supreme Court characterized *Sharp I*'s reasoning as the loss of chance doctrine when it affirmed its ruling on narrower grounds.[63] Regardless of its name, *Sharp I* clearly interprets the substantial factor language as a lesser burden of causation, when evidence of but-for causation is lacking. Furthermore, *Sharp I* indicates that the but-for standard is inappropriate in cases where the plaintiff's chance of avoiding harm is less than 50%.[64] It rejects such a harsh standard as being unfair to plaintiffs, encouraging wrongful conduct by tortfeasors, and incorrectly eliminating the purpose of a jury.

While a few divisions of the Colorado Court of Appeals have declined to follow *Sharp I*,[65] and other courts have departed from its reasoning,[66] *Sharp I* remains good law in Colorado. In fact, the Supreme

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[62] *See*, *e.g.*, Verdicchio v. Ricca, 179 N.J. 1, 24–25, 843 A.2d 1042, 1056 (2004) (quoting Gardner v. Pawliw, 150 N.J. 359, 376 (1997) ("The substantial factor test allows the plaintiff to submit to the jury not whether "but for" defendant's negligence the injury would not have occurred but 'whether the defendant's deviation from standard medical practice increased a patient's risk of harm or diminished a patient's chance of survival and whether such increased risk was a substantial factor in producing the ultimate harm.'"); McBride v. United States, 462 F.2d 72, 75 (9th Cir.1972) (applying Hawaii law); O'Brien v. Stover, 443 F.2d 1013, 1017–18 (8th Cir.1971) (applying Iowa law); Hicks v. United States, 368 F.2d 626, 632–33 (4th Cir.1966) (applying Virginia law); James v. United States, 483 F.Supp. 581, 585–87 (N.D.Cal.1980); Thompson v. Sun City Community Hosp., Inc., 688 P.2d 605, 613–16 (Ariz. 1984); Northern Trust Co. v. Louis A. Weiss Mem'l Hosp., 143 Ill.App.3d 479, 97 Ill. Dec. 524, 529–30, 493 N.E.2d 6, 11–12 (1986); Mayhue v. Sparkman, 653 N.E.2d 1384, 1389 (Ind. 1995); Roberson v. Counselman, 686 P.2d 149, 159–60 (Kan. 1984); Aasheim v. Humberger, 695 P.2d 824, 827–28 (Mont. 1985); Roberts v. Ohio Permanente Med. Group, Inc., 668 N.E.2d 480, 482–84 (Ohio 1996); McKellips v. Saint Francis Hosp., Inc., 741 P.2d 467, 475 (Okla. 1987); Hamil v. Bashline,392 A.2d 1280, 1284–89 (Pa. 1978); Herskovits v. Group Health Coop. of Puget Sound, 664 P.2d 474, 477–79 (Wash. 1983); *see also* 54 A.L.R.4th 10 (Originally published in 1987).

[63] Kaiser Found. Health Plan of Colorado v. Sharp, 741 P.2d 714, 718, n. 5 (Colo. 1987) (indicating that the Appellate Court based its decision on the "lost chance doctrine" found in Section 323 of the Second Restatements).

[64] *Sharp I*, 710 P.2d at 1156.

[65] *See*, *e.g.*, Lorenzen v. Pinnacol Assurance, 457 P.3d 100 (Colo. App. 2019); Reigel v. SavaSeniorCare L.L.C., 292 P.3d 977 (Colo. App. 2011).

[66] June v. Union Carbide Corp., 577 F.3d 1234 (10th Cir. 2009).

Court of Colorado has expressly declined to address whether the lesser burden of causation or loss of chance doctrine discussed in *Sharp I* would be applied again in an appropriate case, and the issue has not been addressed since. We are left instead with differing opinions in the appellate courts, and very little guidance as how the issue might eventually be resolved.

b) Substantial factor as a type or subset of but-for causation

Other courts in Colorado have interpreted substantial factor as a test that subsumes but-for causation. In other words, "substantial factor" must also satisfy the requirements for "but-for" causation.[67] Leading the charge on this iteration is a Tenth Circuit decision that applies Colorado law, *June v. Union Carbide Corp.*[68]

In *June*, the Tenth Circuit analyzed the Restatement (Second) of Torts §§ 430-433, addressing the causal relationship necessary to establish negligence.[69] The court reasoned that before tortious conduct can qualify as a substantial factor under the Restatements, it must fall into one of two alternative categories described in Section 432.[70] First, "the actor's negligent conduct is not a substantial factor in bringing about harm to another if the harm would have been sustained even if the actor had not been negligent."[71] Second, "[i]f two forces are actively operating, one because of the actor's negligence, the other not because of any misconduct on his part, and each of itself is sufficient to bring about harm to another, the actor's negligence may be found to be a substantial factor in bringing it about."[72] *June* interpreted the first requirement to be the general but-for causation standard, and it modeled the second category after what the Third Restatement identified as "multiple sufficient causes."[73]

In at least two cases, the Colorado Court of Appeals applied *June's* interpretation of the substantial factor analysis, issuing a standard that subsumes but-for causation, must satisfy one of the above two alternative requirements, and, for all intents and purposes, is no different from traditional but-for causation.[74] In *Reigel v. SavaSeniorCare L.L.C.*, the

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[67] Lorenzen v. Pinnacol Assurance, 457 P.3d 100, 105 (Colo. App. 2019).
[68] June, 577 F.3d at 1234.
[69] *Id.* (*citing* Restatement (Second) of Torts § 430-433); *see also,* June, 577 F.3d at 1241.
[70] June, 577 F.3d at 1241.
[71] Restatement (Second) of Torts § 432
[72] *Id.*
[73] *June*, 577 F.3d at 1241.
[74] Lorenzen, 457 P.3d at 100; Reigel, 292 P.3d at 977.

Court of Appeals described the standard as follows: "[I]n order to establish causation under Colorado law, a plaintiff must show either that (1) but for the defendant's alleged negligence, the claimed injury would not have occurred, or (2) the defendant's alleged negligence was a necessary component of a causal set that would have caused the injury."[75]

Under the first test, if the harm would have occurred *regardless* of the defendant's conduct, then that conduct is not a but-for cause and is not sufficient to establish proof of causation.[76] The second test is best explained by the following example provided in *June*:

> [T]he evidence at trial may show (1) that conditions A, B, C, D, E and F were present; (2) that if only A, B, and C had been present, the injury probably would have occurred; and (3) that if only D, E, and F had been present, the injury would probably have occurred. If F is the defendant's misconduct, then F was not a but-for cause of the injury; even without F, the injury would have occurred (all it took was A, B, and C). But since D, E, and F would also have caused the injury, F is a component of a second causal set to be a factual cause of the injury. F must, of course, be a *necessary* component of the second causal set to be a factual cause of the injury. That is, F would not be a factual cause if D and E alone would have been enough to cause the injury; F must be a "but for" component of at least one causal set for liability to attach.[77]

Multiple causal sets can also share some elements. If A, B, and C would probably have caused the injury (with each being necessary) and so would A, B, and D, the tortfeasor who committed D would be liable.[78] These scenarios align with Colorado Civil Jury Instruction 9:20, which recognizes that multiple acts or omissions can contribute to the injury, and that the defendant's negligence does not have to be the only cause if it joins in a natural and probable way to produce some or all of the injury.[79] In other

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[75] Reigel, 292 P.3d at 987.
[76] June, 577 F.3d at 1240 (internal citations omitted).
[77] June, 577 F.3d at 1242.
[78] *Id.*
[79] CJI-CIV. 9:20.

words, the defendant's conduct must have been a necessary part in a chain of events leading to the injury.[80]

Importantly, in these two scenarios, a specific defendant's conduct is still considered a cause even if it was a cause that did not contribute to more than 50% of the total harm. In the first example, F was only one of six factors that combined to cause the injury. In the second example, D was only one of three factors. In either case, their relative contribution was less than 50%, yet they were still a cause of the injury.

Similarly, *Lorenzen v. Pinnacol Assurance* also adopted *June*'s reasoning and explicitly followed the interpretation that "substantial factor" and "but-for" were not alternatives.[81] However, it then created confusion by stating that, regardless of his theory of liability, the plaintiff had to show that (1) but for the delayed treatment, the injury (***or the increased risk or the aggravation***) would not have occurred; or that (2) the delay was a necessary component of the causal set casing the injury.[82] By incorporating the "increased risk or aggravation" language, *Lorenzen* cast doubt on the standard of proof necessary to establish causation under Colorado law. In fact, the specified language of "increased risk" in *Lorenzen* is at least a qualifier to, and at most a departure from, *June's* interpretation of the substantial factor test. The question of whether a plaintiff may recover for a loss of chance is thus left open and unclear.

The two divisions of the Colorado Court of Appeals that applied *June's* reasoning—*Reigel* and *Lorenzen*—specifically departed from the reasoning set forth in *Sharp I*, and, in doing so, clouded both the substantial factor analysis and, more importantly, its application. While *Reigel* and *Lorenzen* found the Tenth Circuit's interpretation of substantial factor persuasive, it is hardly the majority view.[83] In fact, many jurisdictions which expressly support the lost chance doctrine, or similar standards of causation, do so by utilizing the substantial factor test described in the Second

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[80] *See* Reigel, 292 P.3d at 987; June, 577 F.3d at 1245; Graven v. Vail Assoc., Inc., 909 P.2d 514, 520 (Colo. 1995); Lorenzen, 457 P.3d at 104-105; Vititoe v. Rocky Mountain Pavement Maint., Inc., 412 P.3d 767, 777 (Colo. App. 2015).

[81] Lorenzen, 457 P.3d at 105.

[82] *Id.*

[83] A survey of all 50 states reveals that 26 states have adopted a causation standard that is less onerous than the traditional but-for test. Jed Kurzban et. al., *It Is Time for Florida Courts to Revisit Gooding*, FLA. B.J., at 8, n.8 (Nov. 2017). While different terminology is used, many states construe the substantial factor language as the alternative to the but-for test. *See infra* note 83 and accompanying text.

Restatements.[84] Of course, the Restatements are neither precedent nor subject to an exclusive mode of interpretation by a court. Moreover, as discussed below, the inconsistency may have much to do with the context in which the substantial factor test arose.

c) Substantial factor as a synonym for proximate causation

In other cases, the substantial factor analysis does not seem to fall neatly into either a test subsuming but-for causation or a separate, alternative test for causation. It instead appears to be a legal qualifier applied *after* a factual cause analysis has been satisfied. Rather than the substantial factor being part of the factual cause analysis, it has been used to address the second aspect of causation, legal or proximate cause.[85] This particular assignment for substantial factor tends to arise most frequently when there are potential intervening causes at play.[86] Once again, the failure to use consistent terminology or even specify whether substantial factor

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[84] *See, e.g.,* Delaney v. Cade, 873 P.2d 175, 187 (Kan. 1994) (holding that a substantial loss of chance is sufficient to withstand summary judgment); McKellips v. Saint Francis Hosp., Inc., 741 P.2d 467, 475 (Okla. 1987) ("[T]he jury may determine that the tortious act of malpractice was in turn a substantial factor in causing a patient's injury or death."); Hamil v. Bashline, 392 A.2d 1280, 1289 (Pa. 1978) ("[L]iability could attach if the negligence of the defendant were but a substantial factor in bringing about the death."); Gardner v. Pawliw, 150 N.J. 359, 375–76 (1997) ("The majority of jurisdictions has similarly modified the traditional "but for" causation standard of proof in cases where the injury allegedly resulted in part from a defendant's negligence and in part from a preexistent condition to permit such plaintiffs to submit for jury consideration the questions of whether the defendant's deviation from standard medical practice increased a patient's risk of harm or diminished a patient's chance of survival and whether such increased risk was a substantial factor in producing the ultimate harm").

[85] *See* Graven v. Vail Assocs., Inc., 909 P.2d 514, 520–21 (Colo. 1995), *as modified on denial of reh'g* (Jan. 16, 1996) ("Where, as here, various factors are alleged to have contributed to the plaintiff's injuries, the determination whether a particular factor was a substantial factor must ultimately be made by the jury."); *see also* N. Colorado Med. Ctr., Inc. v. Comm. on Anticompetitive Conduct, 914 P.2d 902, 908 (Colo. 1996) (implying that the substantial factor analysis comes after the but-for analysis).

[86] "Where the circumstances make it likely that defendant's negligence will result in injuries to others and where this negligence is a substantial factor in causing the injuries sustained, the requirement of proximate causation is satisfied." Ekberg v. Greene, 196 Colo. 494, 497 (1978).

appropriately fits within the factual cause or legal cause divide, is an obstacle litigants face when attempting to understand or assess the causation analysis in medical malpractice cases.

d) The contextual problem with the substantial factor analysis

As demonstrated in this discussion of causation-in-fact, "substantial factor" has been applied in a variety of conflicting scenarios. In the legal world, terms and phrases are often used elastically. Their meaning can vary depending on the context and circumstances in which they are used. However, when a phrase is used so broadly and inconsistently that its meaning becomes virtually useless, it no longer serves a purpose. It creates a problem.

For the most part, Colorado courts have understood substantial factor to be part of the factual cause analysis, even though they diverge on whether it subsumes but-for causation or offers a more flexible standard. However, both constructions depart from its original intent and its meaning within the Restatements.

When lawyer, judge, and Harvard law professor Jeremiah Smith introduced the concept of substantial factor, he was more concerned with the issues surrounding legal cause than factual cause.[87] He desired a better, consistent approach to the extent of liability of tortious conduct than the foreseeability or probability tests that had been used in the past.[88] Smith's formulation of substantial factor was intended to address the question of legal cause, and, in doing so, it was presumed that the cause-in-fact (but-for causation) analysis had already been satisfied.[89] Even though Smith's legal-cause-only formulation was adopted by both the First and Second Restatements, there were noticeable efforts to instead construe it as a cause-in-fact approach,[90] or as a test that arose only when traditional but-for

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[87]Jeremiah Smith, *Legal Cause in Actions of Tort*, 25 HARV. L. REV. 303 (1912).
[88]*Id.*
[89]Richard W. Wright, *Once More into the Bramble Bush: Duty, Causal Contribution, and the Extent of Legal Responsibility*, 54 VAND. L. REV. 1071, 1079 (2001).
[90] *Id.*; *see* Restatement of Torts §§ 432-33 (1934); Leon Green, *Review of "Rationale of Proximate Cause"* 137, 140, 180-85 (1927); Leon Green, *Judge and Jury* 190-95 (1930); Leon Green, *The Causal Relation Issue in Negligence Law*,

causation created unjust or illogical results. Unsurprisingly, this confusion has resulted in an identity crisis for the substantial factor test, a problem impacting jurisdictions beyond Colorado. Despite the chaos, many advocate that the substantial factor test should replace the but-for test altogether.[91]

Because it floats in murky waters, scholars have deemed the substantial factor test to be all but useless.[92] In Colorado alone, it has been construed as a less-stringent standard than but-for causation, a causation test when multiple causes contribute to the harm that subsumes but-for causation, and a factor related to proximate cause instead of actual cause. This makes it not only confusing, but problematic. Different uses of substantial factor can be found across jurisdictions, but the degree of inconsistency within the same jurisdiction may be unique to Colorado. Dan Dobbs summed it up best when he said, "The substantial factor test is not so much a test as an incantation. It points neither to any reasoning nor to any facts that will assist courts or lawyers in resolving the question of causation."[93] In other words, it is useless in its current form.

Like many of the issues in Colorado surrounding causation, the substantial factor test must be clarified or abandoned.

2. Legal Cause

The second concept embodied by the element of causation is scope of liability, as it is aptly characterized in the Third Restatement. Different from factual causation, scope of liability addresses whether a defendant

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60 MICH. L. REV. 543, 557-59 (1962); Wright, *Causation*, *supra* note 3, at 1781-84.

[91] "In recent years, due to the influence of the late Dean Prosser and the Restatements of Torts, the "substantial factor" test has been advocated as a replacement for the but-for test. A force or condition is deemed a cause of a victim's harm when it was a "substantial factor" in bringing that result about." Joseph H. King, Jr., Causation, *Valuation, and Chance in Personal Injury Torts Involving Preexisting Conditions and Future Consequences*, 90 YALE L.J. 1353, 1355–56 (1981).

[92] "As a test for determining either causal contribution or the extent of legal responsibility for tortiously caused injury, the substantial-factor formulation is completely useless." Richard W. Wright, *Once More into the Bramble Bush: Duty, Causal Contribution, and the Extent of Legal Responsibility*, 54 VAND. L. REV. 1071, 1080 (2001); Dan B. Dobbs, THE LAW OF TORTS, § 416 (2000).

[93] Dan B. Dobbs, THE LAW OF TORTS, § 416 (2000).

should be held liable from a legal policy standpoint even if it is clear they contributed to a plaintiff's injury. The Third Restatement defines it as the inquiry into whether the harm suffered is among the "harms that result from the risks that made the actor's conduct tortious."[94]

For example, after a hunt, a man returns to his place of lodging where he negligently hands a loaded shotgun to a child without ensuring the safety lock is turned on. The child immediately drops the shotgun on his pinky toe, fracturing it upon impact. The shotgun is neither particularly heavy nor awkward to hold. It can be argued that while the hunter is negligent in providing a loaded shotgun to a child, it is not because it would likely result in a broken toe. Rather, he is negligent because the child could have shot himself or someone else.

Consequently, even though the hunter's tortious conduct is a factual cause of the injury—the child would not have broken his toe without the hunter handing him a gun—there are questions as to whether the hunter should be held liable for any bad outcome that occurs based on his tortious conduct, or whether the law should place limitations on his liability. This is the query behind scope of liability. It is easy to understand why substantial factor has been, correctly or not, cast in this light. It seems naturally situated to play a role in limiting or expanding the scope of liability. However, with few exceptions, Colorado courts have not generally included substantial factor as part of their analysis when addressing scope of liability.[95]

Nevertheless, as problematic as the terminology surrounding factual cause is, the problem with scope of liability is even worse. In Colorado case law, let alone treatises and articles, the terminology used to describe this concept of causation has been not only inconsistent but also inaccurate. Colorado courts have interchanged, distorted, and even combined the terms proximate cause and legal cause when discussing causation, and worse, done so when explaining a variety of critically distinct concepts. This has left behind a semantic mess that yields inconsistent results.

Examples of this result can be seen in *Reigel* and *Lorenzen*, as the court used the term "proximate cause" to refer to the combination of factual cause and legal cause ("scope of liability").[96] By contrast, *June*, following the language used in the Third Restatement, uses the term "proximate

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[94]Restatement (Third) of Torts: Phys. & Emot. Harm § 29 (2010).
[95]*See supra* Section III.A.1.
[96]Reigel, 292 P.3d at 985.

cause" synonymously with "legal cause" or "scope of liability."[97] The same is true in *Moore v. W. Forge Corp.*, where the court clearly distinguishes proximate (legal) cause from factual cause.[98] Ironically, or perhaps troublingly, both *Reigel* and *Lorenzen* partly derive their causation discussion from *Moore* and ultimately defend their opinion by appealing to *June's* reasoning, yet they do not use the same terms in *Moore* and *June* consistently, correctly state what they mean, or even acknowledge the different meanings.[99]

Similarly, the Colorado Supreme Court in *Rocky Mountain Planned Parenthood, Inc. v. Wagner*, chose to use the term "legal cause" as something different than factual cause, while acknowledging it is "sometimes called 'proximate' causation."[100] In contrast to the conflicting definitions above, *Sharp I* uses the term "proximate cause" seemingly to refer to factual cause, as opposed to the scope of liability or the combination of both.[101] In other cases, proximate cause does not seem to refer to factual cause, legal cause, and/or a combination, but rather to present the element of causation in general, without an attempt or intention of defining what it means, if it has a precise meaning at all.[102]

The Restatements are partly to blame. After recognizing the inherent confusion surrounding the term proximate cause, which had been frequently used by courts, the Restatements replaced proximate cause in favor of the term legal cause. [103] In doing so, however, a new convoluted history emerged because courts, drawing from both the Restatements and case law, started using the term legal cause without ever dropping the term proximate cause.[104] Nevertheless, this explanation hardly excuses the neglect by recent courts to clarify the issue. The Third Restatement had the goal of doing exactly that when it disposed of the terms legal cause and proximate cause

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[97]June, 577 F.3d at 1240.
[98]Moore v. W. Forge Corp., 192 P.3d 427, 436 (Colo. App. 2007).
[99]Reigel, 292 P.3d at 985; Lorenzen, 457 P.3d at 104.
[100]467 P.3d 287, 292 (Colo. 2020).
[101]*Sharp I*, 710 P.2d at 1155.
[102]*See* MacMahon v. Nelson, 568 P.2d 90, 91 (Colo. App. 1977).
[103]*See* Restatement (Third) of Torts: Phys. & Emot. Harm 6 Spec. Note (2010); Restatement (Third) of Torts: Phys. & Emot. Harm § 26, cmt. a (2010).
[104]Marshall v. Nugent, 222 F.2d 604, 610 (1st Cir. 1955) (recognizing that legal cause might be the better term, but courts nevertheless continue to use proximate cause).

and replaced them with the phrase "scope of liability," which by all accounts, seems to be the least confusing.

Although Colorado courts have cited the Third Restatement with approval and adopted the "scope of liability" language, they have not clarified that this phrase is intended to replace proximate and/or legal cause. Fortunately, in the medical malpractice context, the discussion of causation is rarely focused on scope of liability, so the problems of terminology do not often have a detrimental impact on litigants. Typically, cases revolve around factual cause, as opposed to legal cause. This leads to the second problem with causation: application.

B. The Problem with Application

In light of the terminology problems, the issue with application becomes obvious. The danger of having an unclear standard is that the application becomes arbitrary. Jeremiah Smith theorized that "[a] bad test, consistently applied, would seem to some lawyers better than no test at all."[105] Certainly, it is true that a bad test, inconsistently applied, is worse. Such is the status in Colorado.

The problem emerging from the inconsistent terminology is the lack of consistent application. This is illustrated by the many Colorado cases that have reached widely differing results, despite supposedly having the same standard of causation. It appears that Colorado courts either do not fully understand how the causation standard is applied, have disregarded it, or have arbitrarily chosen when not to apply it. In any case, both plaintiffs and defendants in medical malpractice suits lack clear roadmaps and directives and suffer from unpredictable outcomes.

A brief discussion of several seminal Colorado cases involving causation, the majority of which are medical malpractice, helps illustrate the problem. Naturally, some of the discussion points overlap with, and even mirror, the problems of terminology described above. That said, application presents a distinct and equally troublesome barrier to a unified and suitable approach to understanding and applying a consistent standard of causation in medical malpractice cases.

1. The Dance Between *Sharp I* and *Sharp II*

[105] Jeremiah Smith, *Legal Cause in Actions of Tort*, 25 HARV. L. REV. 103, 105 (1911).

Although *Sharp I* used a different standard of causation than other cases, the problem of application remains a challenge because the court still employed the substantial factor test. It was interpreted differently and applied in a manner that diverges from other Colorado cases using the same test. The court in *Sharp I* held that if the defendant's conduct substantially increased the risk of harm to the plaintiff, it is a question of fact for the jury to decide if that increased risk of harm was a substantial factor in producing the harm.[106] The increased risk caused by the defendant's conduct must be substantial, but the court set no parameters beyond that.[107] The jury is tasked with that determination. The Colorado Supreme Court granted certiorari on *Sharp I*, and ultimately affirmed its decision, albeit on narrower grounds.[108] While refusing to take a stance on the legal reasoning in *Sharp* I—and specifically its substantial factor analysis and import of Section 323 of the Second Restatement—the Colorado Supreme Court held that the plaintiff's expert had presented enough evidence of a causal link through traditional but-for causation for the case to reach a jury.[109] This was a striking position for the court to take because it relied on the same factual evidence as did the Court of Appeals.[110]

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[106] *Sharp I*, 710 P.2d at 1155-56.
[107] *Id.*
[108] *Sharp II*, 741 P.2d at 718.
[109] *Id.* at 719-720.
[110] Specifically, the Court relied on these two statements contained in an affidavit from plaintiff's causation expert:

> "It is not known what Mrs. Sharp's particular course would have been had she been treated properly. However, no matter what course her angina took, it is more probable than not that, with adequate treatment, Mrs. Sharp should not have sustained an acute myocardial infarction."
>
> "It is therefore my opinion, to a reasonable degree of medical probability (more likely than not) that Mrs. Sharp's risk of acute myocardial infarction was substantially increased by the inappropriate care and treatment she received and that her chance of sustaining an acute myocardial infarction would have been substantially reduced had appropriate care and treatment been rendered."

Id. at 717, 720.

The Colorado Court of Appeals and the Supreme Court looked at the same facts, reviewed identical expert opinions, and consulted the same standard of causation. Yet they ultimately applied that standard differently. The Court of Appeals took the evidence, determined it did not meet traditional but-for causation, and utilized a different analysis that it identified as the substantial factor test. By contrast, the Supreme Court interpreted the same evidence as meeting the but-for causation standard. While it is possible that the different application of the law to the same facts could be related to different legal arguments made to the Court of Appeals and Supreme Court, that does not explain the inconsistent, and arguably conflicting rulings. On the one hand, it indicates that the determining factor in successfully meeting the burden of causation is no more than mere semantics—a game dependent on uttering ever-shifting magic words—by the parties. On the other hand, it generates the terrifying prospect that a court may arbitrarily determine causation without any consistency whatsoever. Both are troubling.

2. The Pivot by the Tenth Circuit in *June*

One example suggesting causation is just a matter of legal semantics is exemplified by *June.* In *June*, the plaintiffs argued that the defendants' milling operations to extract uranium oxide in Uravan exposed its residents to various radioactive materials, which in turn caused or increased the risk of thyroid disease and cancer.[111] After a long, albeit incomplete[112], discussion of causation in Colorado, the court determined that Colorado firmly remains a but-for causation jurisdiction, and when multiple causes come into consideration, the applicable substantial factor test nonetheless subsumes but-for causation.[113] The expert witnesses in *June* explained that, for the plaintiffs that suffered from a thyroid-related illness, 5% of the radiation exposure came from Uravan, which made it a substantial contributing factor to their thyroid disease.[114] For the plaintiffs who developed cancer, the expert testified that there was a 10% likelihood that

[111]June, 577 F.3d at 1237.
[112]The *June* Court concludes *Sharp I's* interpretation of sections 430-433 is flawed despite support found in several other jurisdictions, and it leaves out section 323 entirely.
[113]June, 577 F.3d at 1244-45.
[114]*Id.* at 1246.

the radiation exposure contributed to the plaintiffs' cancer.[115] The court in *June* ruled that these opinions did not constitute but-for causation nor comprise a necessary component of a causal set, such that the appropriate burden of causation was met.[116] In reaching this conclusion, the court assured that it was not being hyper-technical or depending on some "magic words" uttered by the experts.[117] Yet that is precisely what the court was doing.

The dissent noted that the expert used the same percentages to identify that but-for the radiation exposure, the plaintiff would not have suffered their injuries.[118] In other words, the dissent exposed the underlying irony: the exact same evidence—the expert testimony—that was proffered to support causation under the substantial factor test was equally equipped to support causation under the traditional but-for test. The majority, however, rejected this argument because it had not been made in a timely manner, and instead only considered the arguments for the substantial factor test, as it was described in *Sharp I*, put forth by the plaintiffs. In all likelihood, considering the dissenting opinion,[119] the same evidence would have been sufficient to satisfy the standard of but-for causation, if it had been argued in a particular way, using the specific language the court desired, in a timely manner. Yet again, the problem of inconsistent application reveals that medical causation depends more on a game of semantics than it does on factual evidence.

3. The Apparent Rejection of "Substantial Factor" in *Reigel*

In *Reigel*, the court explicitly rejects the less onerous standard of substantial factor, but nevertheless applies a more flexible causation standard to the facts of the case. Involving the death of the plaintiff following a heart attack, a court held that it was error for the trial court to only require the plaintiff to present evidence that the defendant's negligence *increased the decedent's risk of death* or *deprived him of a significant*

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[115] *Id.*
[116] *Id.*
[117] *Id.*
[118] *Id.* at 1253 (Holloway, J. dissenting)
[119] Even the majority court suspended judgment as to whether those opinions may in fact be enough to meet the but-for standard, thus distancing itself from the real issues. *Id.* at 1247.

chance to avoid death.[120] The court reasoned that "the fact that a defendant's conduct *increased the victim's risk of injury* does not necessarily mean that the defendant's conduct was a but-for cause of the injury . . . Put another way, *the victim's injury may well have occurred regardless of whether the defendant's conduct increased the risk* that it would occur."[121]

Nevertheless, the court concluded that there was sufficient evidence to support a jury finding that Mr. Reigel would not have died had he been taken to the hospital immediately after he began having the heart attack.[122] Specifically, the plaintiff's expert testified that when a person is dehydrated, he has a greater risk of suffering a heart attack. He explained that Mr. Reigel was dehydrated the day before he was transferred to the hospital, and it likely affected his heart rate. The dehydration could have contributed to the heart attack, but the expert was not sure whether it was a substantial contributing factor in triggering the heart attack because Mr. Reigel had other risk factors. The defendant's expert testified that a person who has a massive heart attack, has a 90% chance of survival if an angioplasty is done within 90 minutes of the heart attack beginning. Based on the evidence, the court concluded that there was sufficient evidence to find that, but for the defendant's negligence, Mr. Reigel would have been able to have the procedure and that he would have been among the 90% success rate.[123] Importantly, however, there was no specific evidence provided by the plaintiff's expert that would establish the traditional concepts of but-for causation. Instead, the court drew that conclusion by its own interpretation of the evidence.

4. The Outlier in *Dean*

The problem with application is seen perhaps most glaringly when comparing the unpublished opinion of *Dean v. Zemach* to *Sharp II*. In *Dean*, a baby sustained a hypoxic ischemic brain injury during the labor and delivery process.[124] Although she was eventually transferred from the rural hospital where she was born to a NICU where she could receive a higher level of care, she arrived outside the 6-hour window of time to provide

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[120]Reigel, 292 P.3d at 987.
[121]*Id.* (emphasis added).
[122]*Id.* at 988-90.
[123]*Id.*
[124]Dean v. Cath. Health Initiatives Colo., No. 19CA0987, 2020 WL 6948837 at *3 (Colo. App. Nov. 19, 2020).

therapeutic hypothermia, a treatment that may help reduce the severity of hypoxic ischemic encephalopathy.[125]

In addition to other claims, the child brought a claim against the pediatrician who cared for her the night she was born for his failure to recognize the possible brain injury and transfer her early enough to receive therapeutic hypothermia.[126] The plaintiff presented expert testimony that 1 in 6 babies received benefit from this treatment, and that more likely than not (greater than 51%), earlier transfer would have significantly reduced the severity of her brain injuries and improved her outcome.[127] The pediatrician countered that there was no proof suggesting that *this* baby would have been the one in six to receive a benefit from treatment, and that there was no evidence regarding the *degree* of benefit she would have received.[128]

In an unpublished decision, the Court of Appeals determined that the plaintiff failed to establish but-for causation against the pediatrician. It noted that, while the jury could potentially rely on the expert's opinion to conclude that there was a 51% chance the child would have fared better with cooling therapy,[129] there was no evidence as to what the likely outcome would have been, which required the jury to speculate and was insufficient to establish a triable issue of causation. Summary judgment in the pediatrician's favor was affirmed.

It is nearly impossible to reconcile *Dean* with other Colorado cases, including *Sharp II*, that have required far less to meet the burden of causation. *Dean* does not turn on whether there was a greater than 50% chance of avoiding the injury, but instead turns on the fact that the precise extent of the brain damage resulting from the pediatrician's negligence was never quantified by the expert. The court did not base its ruling on whether there was but-for causation, but instead, based it on a causation standard that was never identified or explained. The court simply required more details from the expert regarding the injuries, a request that is typically impossible within the medical context. For that reason, *Dean* may be an outlier in the discussion, but its result is yet again a glaring reminder of the

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[125] *Id.*

[126] *Id.*

[127] *Id.* at *5.

[128] *Id.* at *6.

[129] The expert opined that the child "would have received a substantial and significant reduction in her permanent deficits" but did not provide any quantifiable detail on how she would have benefitted from cooling therapy, only that she would have had a better outcome.

lack of consistent application in Colorado courts, and the unpredictable outcomes that plague medical malpractice cases.

IV. SOLVING THE PROBLEM

The nuances of medicine, the legal hurdles of expert testimony, and the complexity of causation make pursuing medical malpractice cases inherently difficult. Adding an unclear causation standard that fails to precisely describe and consistently apply what a victim of malpractice must prove, can make litigating certain types of medical malpractice cases unfeasible. The case law in Colorado has left litigants with unclear language, conflicting results, and little, if any, guidance. Reaching a solution is vital.

We propose two efforts that will help Colorado settle on one approach to causation, eliminate inconsistent and conflicting results, and provide stability and predictability for litigants. Fairness dictates that there should be a uniform standard for causation, and that a litigant's result should not depend on which court or division decides the case.

Firstly, to achieve this goal, courts must initially establish uniform terminology, clarifying any new terms from those used in previous cases or treatises.

Secondly, courts should reevaluate the substantial factor analysis and conclude whether it should be replaced or revised. At the moment, substantial factor serves too many purposes to be useful and instead creates problems in consistency and meaning.

A. Establish Uniform Terminology

Taking cues from the Third Restatement, Colorado should separate itself from the terms "proximate cause" and "legal cause," which only seem to confuse judges, lawyers, and law students, let alone jurors and laypeople. Courts have already started to lean in this direction, and the reluctance to commit fully to one set of terms has created enough confusion.

Perhaps the best way forward would be to separate causation into 1) actual cause (*is the defendant a cause of the injury?*); and 2) scope of liability (*should the defendant be held responsible for the injury?*). The first refers to cause-in-fact and addresses the critical analysis of whether the defendant's

tortious conduct actually contributed to the plaintiff's harm.[130] This would eliminate the confusion surrounding whether proximate cause refers to factual cause or legal cause, or some combination of the two, and would reduce the danger of misusing these historically messy terms. Scope of liability addresses the second aspect of causation, which is determining whether a defendant should be held responsible for the particular type of harm that resulted from his tortious conduct, while also encompassing issues like intervening and superseding cause.

While this approach may seem like it would be starting over, and require a sweeping of the past, the groundwork has largely been laid by recent courts addressing the issue.[131] In fact, all that is necessary is an explicit declaration by the Colorado Court of Appeals and/or the Colorado Supreme Court that this precise terminology represents the standard moving forward. This is an achievable task.

The workability of this solution can be illustrated by *Ramirez*, which altered the standard for the admissibility of expert opinions under Rule 702.[132] Despite the common usage of the standard—to a reasonable degree of medical probability—*Ramirez* clarified that this standard was not the correct one and dispelled its use, specifically abrogating any prior courts that had used it.[133] While the issue is not the same, it illustrates the potential for courts to address a confusion or mistake in terminology and explicitly reject it, in order to clarify a specific path forward. While its adoption into practice may not always translate as quickly, the law on the topic is clear and litigants use the abrogated standard to their own peril. Likewise, if the Colorado Court of Appeals and Supreme Court specifically eliminate the terms proximate and legal cause from their vocabulary, and replace them with scope of liability, these terms may still linger, but the standard will be clear. Providing this clarity is an important first step to fixing the problem of causation in Colorado.

B. Reevaluate and Replace or Revise the Substantial Factor Analysis

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[130]This sets aside (for now) the question of *how much* the defendant's conduct contributed to the harm.

[131]*See.*, *e.g.*, Wagner, 467 P.3d at 298.

[132]Ramirez, 155 P.3d at 377-78.

[133]*Id.*

Likely the greatest obstacle to overcome for causation uniformity in Colorado is the conglomeration of multiple identities that form the substantial factor analysis. To address the problems in Colorado, substantial factor must be reevaluated, and then courts must determine whether to revise the test or replace it altogether. The substantial factor test has been used as an alternative, less-stringent standard to but-for causation, a separate causation analysis that subsumes the but-for test, and a legal test that arises when the question of whether an intervening cause should relieve a defendant of liability. The Colorado Supreme Court has neither specified how the substantial factor test should be defined nor whether, when understood as an alternative to but-for causation, it applies in Colorado. These issues cannot remain forever undecided. Either the court must replace the substantial factor test or revise the substantial factor test to clarify what it means and how it should be applied.

1. Replace substantial factor test

As explained above, the substantial factor test has three disparate meanings, depending on the case and how the court intends to use it, making its use as a legal test both arbitrary and virtually meaningless. One option that would help resolve the problem associated with this elusive phrase is for the court to replace the substantial factor analysis with one or more separate tests, limiting it to one of the three meanings it often takes, and thus reestablishing its worth in the causation analysis.

The court could achieve this goal by replacing the version of the substantial factor test that subsumes but-for causation as a prerequisite with the language of "multiple causal sets," taken from the Third Restatement. This would mean the court determines that the substantial factor test is solely a question of causation in fact, and it is a test that arises when there are multiple causes at play, but nevertheless has but-for causation as its prerequisite. This follows the reasoning used in *June* and others.

This, in turn, would result in one of two consequences for *Sharp I*'s substantial factor analysis. Firstly, by revising substantial factor to mean multiple causal sets, the court would leave *Sharp I*'s reasoning intact. Therefore, *Sharp I*'s version of substantial factor—unless specifically overturned—would remain ambiguous. Secondly, the court may replace the substantial factor analysis in *Sharp I* with the loss of chance doctrine. However, this would require that the court specifically abandon the substantial factor language, dismiss its meaning, and render *Sharp I* either

bad law or good law by another name, something the Colorado Supreme Court has historically declined to address.

While either scenario above is a possibility, we struggle with both the path forward in creating stability and clarity, as well as the potential injustice to plaintiffs that would result from overturning *Sharp I*. In medical malpractice, most cases involve at least some component of whether and to what degree the defendant's conduct caused or contributed to the injury, *versus* a preexisting condition, the plaintiff's own actions, or that of other defendants or nonparties. When multiple potential causes are at play, overturning *Sharp I* would present the grave danger of preventing a plaintiff from recovering for the harm caused by a defendant.

2. Revise the substantial factor test

A second, and in our opinion better, option is to recognize the substantial factor test as a stand-alone test for causation, as did *Sharp I*. In essence, Colorado would be using substantial factor the same way several other jurisdictions have done, as the loss of chance doctrine.[134]

Doing so would allow litigants to have a clear test when their case does not neatly fall into traditional but-for causation and reduce the confusion plaintiffs face when describing and arguing causation in such cases. It would furthermore help resolve the split in the Colorado appellate courts on substantial factor, as well as resolve equivocal language and reasoning in cases such as *Lorenzen*, and others, where the letter of the law is apparently misapplied to the facts. Finally, it would clarify situations where plaintiffs have suffered from clear, and typically egregious misconduct by a defendant, but where the negligence arose under different factual circumstances than those typically present under a traditional causation analysis. Rather than rely on arbitrary reasoning to address such cases, this would clearly articulate and memorialize an exception to apply when those cases arise. Colorado courts already do this without expressly acknowledging it. Making it explicit precedent would pave a path of clarity, justice, and regularity.

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[134]To alleviate concerns about the defendant bearing more that his proportionate share of the harm caused by his actions, Colorado could adopt language similar to that used by Oklahoma, which reduces the amount of damages based upon the lost chance of survival or recovery. *See e.g.*, Oklahoma Uniform Jury Instruction No. 4.11.

While the loss of chance doctrine may ultimately be the most equitable solution for medical malpractice litigants, that is perhaps a discussion better left to another Article. What is necessary is a workable, consistent solution that helps resolve the problem of causation, rather than leaving it ruled by caprice that litigants will be unable to reliably predict.

V. CONCLUSION

Colorado courts do not harmoniously define or agree on the language they use to describe causation, leading to wildly divergent results. Fairness and impartiality are cornerstones of our justice system. Litigants have the right to expect uniform application of the law to the facts of their case. Unfortunately, causation in medical malpractice is ill-defined, leading to confusion, inconsistent and conflicting results, and overall injustice.

It is important to not only understand the current pitfalls, but also to strive to provide clarity and consistency for courts and future litigants. Recognition of the problem by lawyers and courts alike is a critical first step toward correcting it. Until Colorado courts provide that clarity, though, litigants will continue to engage in guesswork at their own peril, and cases will continue to turn on the ability to use the "right" magic words—which may only be known in retrospect. This uncertainty results in closing the doors of justice to a significant portion of injured people, either because it was too risky to pursue their case or because the causation standard that the courts applied in their case was unpredictable. This uncertainty serves no one: not the providers, not the patients, and not the legal community. Colorado must resolve the problem of causation, and doing so is within our grasp: it simply requires clarification of the standard—or standards—and a commitment to consistently applying those standards to the facts of a case.